

Network ID Camera

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Installation Instructions

NIC2-1 Quick Installation Guide

for MAMMOMAT 300/3000 or
compatible

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Quick Installation Guide

For Siemens Mammomat 300/3000 or compatible



NIC2-1 Network ID Camera

General

This guide describes how to install and customize the Network ID Camera, herein called NIC, which has Siemens specified setup pre-installed.

Prerequisite

Verify that the following items are available/installed at the mammomat:

- Printer connection kit, Siemens item no. 63 82 852
- Isolation kit, Siemens item no. 44 16 652
- Adapter cable, Siemens item no. 64 51 459

Unpacking

The box contains the NIC, a power cord, an operator's manual and this document. The keyboard should be equipped with the country dependent keycaps.

Notice

Verify that the correct camera version was delivered concerning the used cassette type. A standard camera handle all known cassettes with standard C1 or C1N window except Fuji cassettes with telescopic lid and 3M cassettes. Three versions are currently available:

- Standard
- Fuji - Fuji cassettes with telescopic lid, for example type EC-AWU.
- 3M - All 3M cassettes.

Installation



The Network ID Camera is classified as a Medical Device and fulfills EN 60950.

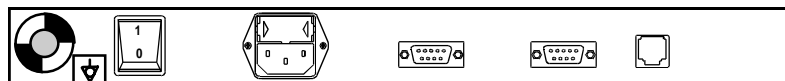
According to European Safety Regulations for Medical Equipments, the following conditions must be fulfilled:

- If the camera is operated within a distance of 1.5 m from the patient, it must be connected to the equipotential equalization device (E2D).

E2D with cable must be provided by the customer.

The purpose of the E2D is to ensure that all medical and other equipments are connected to the same ground potential. If, on installation, your Service Provider connected the camera to the equipotential bushbar using the equipotential bonding plug, this connection may not be interrupted, i.e. you are not allowed to pull off the cable coming from the equipotential bushbar (see illustration below).

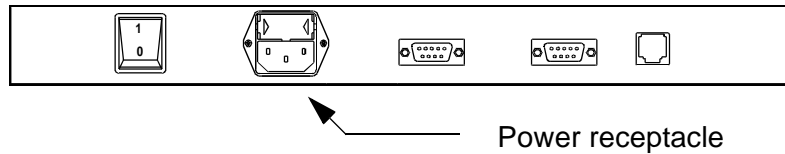
- If the camera is connected to a Medical Equipment according to EN 60601-1(e.g. safety ground or data connections) the safety standard EN 60601-1-1 has to be met and documented.



E2D plug - Connector for the cable coming from the equipotential bushbar.

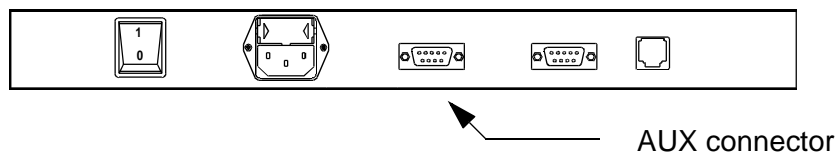
Place the unit on a steady shelf or table. If the camera is operated in a mobile unit, like mammography screening buses, it should be fastened to the surface with two screws mounted from the inside of the NIC.

The power cord should be connected to the power receptacle on the backside of the camera and to a wall outlet.



! No voltage selection is necessary, the camera can be operated at any voltage between 100 - 250 VAC 50/60 Hz.

The communication cable should be connected to the AUX connector on the back of the camera and to the mammomat via the adapter cable.



Setup

The NIC has a standard Siemens setup installed. The only thing to do is to change the hospital name, or delete it if not used. Also, if a Mammomat 300 is connected the communication protocol and active picture must be changed.

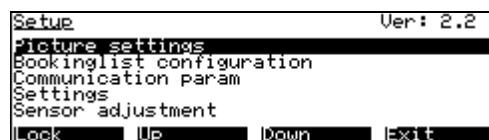
Enter Setup Mode

Enter Setup Mode by pressing SHIFT+F4 from main window.



Main window

After correct password has been given the setup window will appear.



Mammomat 3000

Enter 'Picture settings\Picture Mammo3000', move the highlight bar with up- and down arrow key, select by pressing ENTER. At the bottom of this field list one F-text

field is present, this field is the hospital name.

No	Field	Length	Row,Col
19:	Comm	4	28,198
20:	F-text	3	38,222
21:	H-line	192	38, 0
22:	U-line	10	38,193
23:	F-text	16	40, 0
Place New Remove Exit			

To edit the field, just select it and press ENTER. Move the cursor with up-/down arrow keys to the 'Fixed text' field, edit the text.

Fielddefinition		Field:23
Type:	F-text	
Row:	40	Column: 0
Fixed text:	General Hospital_	Font: Small
		Save

When done press F4 key repeatedly until the main window appear.

Mammomat 300

1. Enter 'Communication param' and change the Protocol to "MMAT300". The 'Channel' should be "AUX" (top right corner), if not press F1 ones. Move the cursor to the 'Protocol' with the arrow keys and select "MMAT300" with the F2- or F3 key.

Communication parameters Channel: AUX	
Speed	9600
Parity	NONE
Databits	8 bits Protocol MMAT300
Channel	Previous Next Save

When done, press F4 ones to save and exit 'Communication parameters'.

2. Enter 'Picture settings\Settings Mammo3000' and set 'Status' to "Not used". This will disable the Mammo3000 picture and automatically enable the Mammo300 picture.

Settings			
Status:	Used	Text:	Normal
Exposure:	550 ms	Location:	Bottom
Intensity:	4.5	Vert adjust:	16
Name:Mammo3000		Def proj:	AP
		Previous	Next Save

When done, press F4 ones to save and exit 'Settings'.

3. Enter 'Picture settings\Picture Mammo300, move the highlight bar with up- and down arrow key, select by pressing ENTER. At the bottom of the field list one F-text field is present, this field is the hospital name.

No	Field	Length	Row,Col
10:	Comm	6	28,204
11:	Comm	6	37,204
12:	H-line	192	38, 0
13:	U-line	10	38,193
14:	F-text	16	40, 0
Place New Remove Exit			

4. To edit this field, just select it and press ENTER. Move the cursor with up-/down arrow keys to the 'Fixed text' field, edit the text.

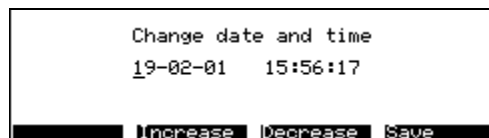
Fielddefinition		Field:23
Type:	F-text	
Row:	40	Column: 0
Fixed text:	General Hospital_	Font: Small
		Save

When done, press F4 repeatedly until the main window appear.

Set Time and Date

If the NIC has been stored a longer period of time it can be that the rechargeable back-up battery is empty. In this case the internal clock must be set.

To set the clock, press SHIFT+F1 from the main window.

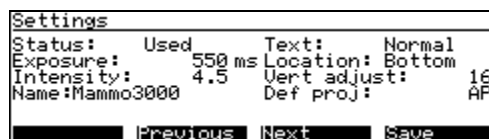


Use left- and right arrow keys to select a value and adjust it by pressing F2 or F3 key.

When done, press the F4 key.

Set Top or Bottom marking

Standard setting for the location of the marking on the film is bottom. To change this setting, enter 'Picture settings\Settings Mammo3000 or Settings Mammo300' and set 'Location' to "Top" and 'Vert adjust' to "0". This will set the marking to the top of the film. For bottom marking, set 'Location' to "Bottom" and 'Vert adjust' to "16"..

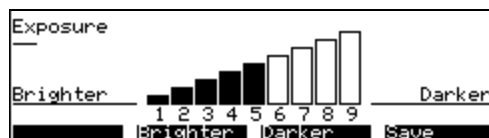


Installation Test

After installation the physical connection and settings in NIC must be verified. To do so, open the patient data window by pressing the F1 key from the main window and send data from the Mammomat. If all works as expected a number of values, such as kV, mAs etc., should appear on the display. If no data appear on the display, please refer to section 'Trouble shooting'.

Now, enter patient data into the Birthdata and Name fields. Mark a film and develop it. If the marking is too dark or light use one of the following two methods to correct this.

1. For fine tune use the operator accessible exposure settings window. This window is accessed from the patient data window by pressing SHIFT+F4.



A higher value means longer exposure time according to the following:

1	2	3	4	5	6	7	8	9
0,5	0,6	0,71	0,84	1	1,19	1,44	1,68	2

The actual exposure time is the basic exposure time multiplied by a factor. Factory default 5 (factor = 1). The basic exposure time is set under 'Setup\Picture settings\Settings', please refer to method two below.

Note that this adjustment is intended for the user to fine tune the density of the marking. If a high (8 or 9) or low (1 or 2) value is required it is recommended that method number two is used.

2. Under 'Setup\Picture settings\Settings' the basic exposure time and Intensity can be adjusted.



The exposure time can be a value between 10 and 65535. A value lower than 300 will cause vertical pattern to appear because of interference with the refresh rate of the exposure time.

Intensity is the intensity of the exposure display. Selectable values are 0.4, 1, 1.8, 4.5 and 10.

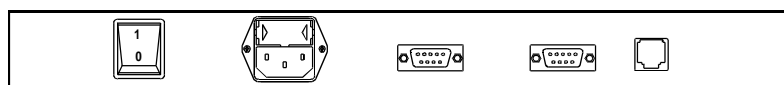
The relations between exposure time and intensity is:

$$\text{New exp.time} = \text{Old exp.time} / \text{Intensity.}$$

Trouble shooting

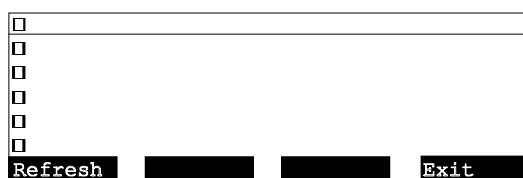
Communication problems

If no data is received from the Mammomat (i.e. no data is displayed on the NIC) a built in serial analyzer can be used to determine whether any data is received or not. This analyzer is connected to the HOST communication port which means that the communication cable from the Mammomat must be moved to this connector.



HOST connector

Enter Setup\Serial analyzer.



The analyzer is displaying all data received in HEX and in plain text using ISO 8859-1 character set.

The soft-keys are used as follow:

- Refresh, press F1 to update the window.
- Exit, press F4 to exit the analyzer
- Clear Buf, press SHIFT+F1 to erase all data in the analyzer.

! Remember to move the communication cable back to the AUX connector after your test.